

## ABSTRACT OF THE DISCLOSURE

A sensor element for a sensor for determining the oxygen concentration in the exhaust gas of internal combustion engines, e.g., for a broadband lambda sensor, is provided. The sensor element has a solid electrolyte forming a pump cell together with an inner electrode inside a cavity, and an outer electrode exposed to the exhaust gas on the outside. The sensor element also includes a prechamber formed in the solid electrolyte, and a diffusion channel formed in the solid electrolyte, the diffusion channel connecting the prechamber and the cavity, and being filled with a diffusion barrier. To prevent measuring inaccuracies of the sensor in the presence of very high quantities of hydrocarbons in the exhaust gas, a catalytic converter for the oxidation of hydrocarbons is located in the prechamber, the catalytic converter being configured as an electrochemical catalytic converter having two electrodes electrically connected with one another.